NEW "ADULT COCONUT" FERTILIZER MIXTURE

The Coconut Research Institute of Sri Lanka (CRISL) currently recommends two general fertilizer mixtures to provide the nitrogen (N), phosphorus (P), and potassium (K) requirement of coconut. They are: the Young Palm Mixture (YPM; 13-12-17) for seedling-/young coconut and the Adult Palm Mixture (APM; 12-6-32) for adult coconut. In addition, application of dolomite at the rate of 1.5-2.0 kg/palm once every three years is also recommended to provide the magnesium (Mg) requirement of coconut.

This fertilizer mixture has been in use for about four years, and the CRI has made the following observations:

1. Growers are often faced with lack of labour during the rainy season to apply fertilizer.

2. The current practice of applying dolomite once in three years often makes the growers to postpone application, resulting in magnesium deficiency. Imported, and therefore more expensive, kieserite is required to correct this deficiency.

3. Since most coconut growing soils have adequate levels of phosphorus, the phosphate component in the fertilizer mixture could be partly substituted with locally manufactured Eppawala Rock Phosphate, thereby saving foreign exchange.

4. Since urea absorbs moisture readily, urea-based fetilizer mixtures tend to get caked up on storing, and therefore needs special packing. Growers often find difficulties with storage of such mixtures.

In order to overcome these problems, the CRI now recommends a new Adult Coconut mixture containing phosphorus, potassium and magnesium. The mixture could be prepared as follows:

Eppawala Rock Phosphate ($30\%P_2O_5$)	- 3 parts by weight
Saphos Phosphate ($27.5\%\ P_2O_5$)	- 3 parts by weight
Muriate of potash ($60\%K_2O$)	- 16 parts by weight
Dolomite (20% MgO)	- 8 parts by weight

(app. composition 0-6-32-5)

This mixture can be applied any time of the year. Since the mixture does not contain a nitrogen source, it is necessary to apply urea separately when the soil is moist. The following rates of application may be used as a guide to determine the appropriate amount for coconut yielding 3,000 nuts-/acre/year. Upto 1½ times of these rates should be applied to improved cultivars, high yielding blocks or blocks with a potential for high yield.

		Dosage (kg/palm/year)	
Climatic Zone	Soil Type	Adult Coconut Mixture (0-6-32-5)	Urea (46% N)
Wet	Gravel, Cabook, Sand	3	0.8
	Loam, Clay	2	0.5
Intermediate	Gravel, Sand	3	0.8
	Loam, Clay	2	0.5
Dry	Gravel	3	0.8
	Loam, Clay	2	0.5
	Sand	2.5	0.7

Instead of urea, organic manures / green manures could be used as indicated below, to obtain the nitrogen requirement of the palms.

Equivalent rate of organic manure kg

Urea kg	Cow dung	Goat dung	Poultry droppings	Glyrisidia fresh leaves
0.5	25	10	20	20
0.7	30	12	25	25
0.8	35	15	30	30

Application: Clean weeding before fertilizer application is not necessary. Excessive weeds in the manure circle area could be slashed. The "Adult Coconut" (0-6-32-5) fertilizer mixture could be broadcast in the manure circle area any time of the year whenever labour is available. Afterwards, the area should be mulched with fronds, weed trash etc. During the rainy season, when the soil is moist, urea should be broadcast in the manure circle area and mulched. If correctly practiced, this procedure is less expensive and saves labour.

Broadcast method of fertilizer application is best for flat lands. However, on sloping lands where soil erosion or run-off is possible, fertilizer has to be applied in full circle trenches cut around the palm or half circle trench on the upper side of the palm. The trench should be 0.8 m (2½ feet) away from the base, 0.9 m (3' feet) wide and 10 cm (5 inches) deep.

ADVISORY CIRCULARS

A new series of Advisory Circulars on the following aspects of coconut cultivation has been issued by the Coconut Research Institute of Sri Lanka.

1. **Coconut cultivation and management**
2. **Crop protection**
3. **Intercropping under coconut.**